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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/726,382	12/03/2003	Sheng-Shiou Yeh	TJK/434	5586
27717	7590	04/27/2005	EXAMINER	
SEYFARTH SHAW 55 EAST MONROE STREET SUITE 4200 CHICAGO, IL 60603-5803			DUDEK, JAMES A	
			ART UNIT	PAPER NUMBER
			2871	

DATE MAILED: 04/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/726,382

Applicant(s)

YEH ET AL.

Examiner

James A. Dudek

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-5, 7-13 and 17-19 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by US 2004/0114081 (“081”).

Per claim 1, 081 teaches structure of a light-shielding frame for a liquid crystal display panel, comprising: a thin film transistor array substrate having a display region [display region is the region corresponding to the pixel region] and a frame region surrounding said display region [black matrix made from the color filters, see paragraphs 70 and 134]; and at least one color layer formed on said frame region [see paragraph 70 and 134], wherein said color layer prevents ambient light from projecting onto said frame region and serves as a spacer whereby a cell gap between said thin film transistor array substrate and an opposite substrate is uniformly controlled [it is used a black matrix].

Per claim 2, 081 teaches the structure according to claim 1, wherein a pattern of a transistor array is formed on said display region [see figures 1 and 23].

Per claim 3, 081 teaches the structure according to claim 1, wherein said cell gap between said thin film transistor array substrate and said opposite substrate is much more uniformly controlled by further forming a planarization layer on said color layer [see 29 of figure 18] .

Per claim 4, 081 teaches the structure according to claim 3, wherein said planarization layer is made of a transparent resin [29 is formed of the same material of the protrusions and is thus transparent].

Per claim 5, 081 teaches the structure according to claim 1, wherein said liquid crystal display panel is a low temperature polysilicon liquid crystal display panel [see paragraph 142].

Per claim 7, 081 teaches the structure according to claim 1, wherein said color layer is selected from a group consisting of a red color layer, a green color layer, and a blue color layer [see paragraph 70].

Per claim 8, 081 teaches a method of manufacturing a liquid crystal display panel, said liquid crystal display panel including a thin film transistor array substrate having a display region and a frame region surrounding said display region, said method comprising the steps of: (a) respectively and simultaneously forming a color filter layer and at least one color layer on said display region and said frame region; (b) attaching said thin film transistor array substrate to an opposite substrate to form a space between said thin film transistor array substrate and said opposite substrate; and (c) injecting a resin made of liquid crystal material into said space [see figures 28-30].

Per claim 9, 081 the method according to claim 8, wherein said step (a) is performed by a photolithography process and a dyeing process [see paragraphs 131-135].

Per claims 10-13, 081 teaches the method according to claim 8, wherein said step (a) further comprises simultaneously forming a spacer on said display region [the color filter and resin 60 and 29 also form the spacers].

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 6 and 14-16 rejected under 35 U.S.C. 103(a) as being unpatentable over 081.

Per claim 6, 081 teaches the structure according to claim 5, but lacks a pattern of a plurality of driving integrated circuits is formed on said frame region. However, it was well known to form drivers on the substrate in order to condense the cell. Accordingly, it would have been obvious to one of ordinary skill at the time of invention to combine the well known COG with 081.

Per claim 14, 081 teaches the method according to claim 12, but lacks said step (a1) further comprises a step of (a2): polishing said planarization layer by chemical-mechanical polishing to a pre-determined thickness. However, chemical-mechanical polishing is well known in order to form a layer having a predetermined thickness. This particular method works particularly well with resin layers. Accordingly, it would have been obvious to one of ordinary skill at the time of invention to combine the well known chemical-mechanical polishing with 081.

Per claims 15 and 16, 081 teaches the method according to claim 12, wherein after said step (a1) further comprises a step of (a3): uniformly spraying a plurality of plastic beads on said display region. However, it was well known to use spacer beads in order to maintain cell gap

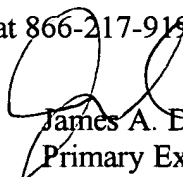
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thickness. Accordingly, it would have been obvious to one of ordinary skill at the time of invention to combine the well known beads with 081.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A. Dudek whose telephone number is 571-272-2290. The examiner can normally be reached on 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H. Kim can be reached on 571-272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
James A. Dudek  
Primary Examiner  
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